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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,307

06/02/2005

Eike Poetsch

MERCK-3034

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08/04/2006

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EXAMINER

CHU, YONG LIANG

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,307	<b>Applicant(s)</b> POETSCH ET AL.	
	<b>Examiner</b> Yong Chu	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                     |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                         | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/10/05, 6/2/05</u> | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

Claims 1-17 are amended by the amendment filed on 13 June 2006. Claims 18-23 are added by the amendment filed on 13 June 2006. Claims 1-23 are currently pending in the instant application.

### ***Information Disclosure Statement***

Applicant's Information Disclosure Statements, filed on 10 November 2005 and 2 June 2005, have been considered. Please refer to Applicant's copies of the PTO-1449 submitted herewith.

### ***Priority***

This application is a 371 of PCT/EP03/12039, filed on 30 October 2003. Acknowledgement is made of Applicant's claim for priority from German Patent Application 10256362.4 under 35 U.S.C. §119(a-d), filed on 3 December 2003.

### ***Response to Lack of Unity***

Applicant's arguments on page 9 of the Remark have been considered, and not persuasive based on the way that the claims are drafted. However, in considering the application as whole, the Examiner has agreed to withdraw restriction requirement dated on 31 May 2006, and examine the whole application.

### ***Status of Claims***

Claims 1-23 are to be examined.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: There is a key typo of "A<sup>2</sup> and A<sup>3</sup> are 1,4-penylene, ..". It should be 1,4-phenylene instead. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

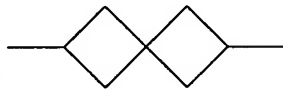
Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for converting a compound of formula (II)  $R-(A_1-Z-)_mBX$ , wherein **X** is halogen, does not reasonably provide enablement for the same kind of conversion into a carboxylic acid derivative, wherein **X** is "**=O**". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making a compound of formula (I)  $R-(A^1-Z-)_mB-CF_2O-A^2-(A^3)_n-R'$ , wherein **m** and **n** are 0, wherein **X** is "**=O**" excluded, does not reasonably provide enablement for the same kind of conversion, wherein **m** and **n** are

Art Unit: 1626

1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Because the specification fails to teach how to make the intermediates of formula (II) wherein  $m$  and  $n$  are 1, or how to obtain the said

intermediates. The intermediates having  $A^1$  as



for example, are

rare, and results are unpredictable. The specification needs to provide guideline for making these kinds of compounds with working examples so that the one skilled in the art can practice the invention without undue experimentation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. The definition of the term "carboxylic acid derivative" in the specification in paragraph {0051} of page 3 different from the definition of the term "carboxylic acid derivative is a bis(alkylthio)carbenium" in claims 8 and 12. Applicant can act as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, however the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term.

Art Unit: 1626

Claims 1-7, 9-10, 18, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: converting carboxylic acid into bis(alkylthio)carbenium salt.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "introduction of a C1 unit" is indefinite.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "liberates halonium equivalents" is indefinite.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1626

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are rejected under 35 U.S.C. 103 (a) as being unpatentable over well-known Grignard reaction in view of esterification reaction (see John McMurry, *Organic Chemistry*, 2<sup>nd</sup> Edition).

Applicants instant elected invention in claims 1-6 teach a process for preparing a compounds of formula (I)  $R-(A^1-Z)_mB-CF_2O-A^2-(A^3)_n-R'$ , depicted in claim 1.

Claims 1-6 repeat general Grignard reaction conditions in step a) and b). All the limits of the process are disclosed by Grignard reaction.

Determination of the scope and content of the prior art (MPEP §2141.01)

John McMurry teaches a process of carboxylation of a Grignard reagent to convert organo-halide into carboxylic acid on page 725-726. Esterification of the resulting carboxylic acid into its phenol ester is basic organic chemistry, and obvious to one skilled in the art.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the prior art of John McMurry and the instantly claimed compounds is that the reference is silent on the compound the application used as the starting material. However, the references teach exact the same types of organic reactions for the claimed processes.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

One skilled in the art would have found the claimed process in claims 1-6 is prima facie obvious over the prior art, because the function groups in the molecule

Art Unit: 1626

decided the processes, which have been taught in the prior art with reasonable chance of success.

### ***Conclusion***

No claims are allowed.

### ***Telephone Inquiry***

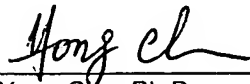
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu whose telephone number is 571-272-5759. The examiner can normally be reached between 7:00 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

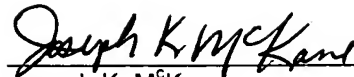
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Art Unit: 1626

A handwritten signature in cursive script, appearing to read "Yong Chu", positioned above a horizontal line.

Yong Chu, Ph.D.  
Patent Examiner  
Art Unit 1626

A handwritten signature in cursive script, appearing to read "Joseph K. McKane", positioned above a horizontal line.

Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626